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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,387	02/15/2002	Jay H. McCandless	HAR66 816 CONT	9309

7590                    06/17/2002

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[REDACTED]  
EXAMINER

WIMER, MICHAEL C

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 06/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	MCCANDLESS ET AL.
Examiner Michael C. Wimer	Art Unit 2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 15 February 2002.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 40-90 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 60-62, 89 and 90 is/are allowed.

6) Claim(s) 40-59, 63-78 and 81-88 is/are rejected.

7) Claim(s) 79 and 80 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 15 February 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1) Notice of References Cited (PTO-892)                    4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                    5) Notice of Informal Patent Application (PTO-152)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.                    6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. It is noted that it is applicant's intent to include Figure 9. However, Figure 9 had not been included in the application papers when this continuation application was filed. It is noted that Fig. 9 was added in the parent application: 09/267,251. No rejection/objection to the added paragraphs, description, etc. will be made as applicant is given the opportunity to file a copy of Fig. 9 in response to this action.
2. Claims 66 and 67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 66, line 4 contains a period, and line 5 contains language misplaced and not understood relative to the claims.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 40-59,63-67,83-86,88 are rejected under 35 U.S.C. 102(b) as being anticipated by Nuding et al (4311973).

Regarding Claims 40-59,63-67,83-86 and 88 Nuding et al show a system and method for coupling two signal paths with two polarizations in the microwave (GHz) range, comprising means (1,2) for coupling first and second paths and means (defining a polarization plate) for rotating the polarization (7,8) of the

signals in a plurality, two, equal-amount increments (0 and 45 degrees) where the polarizations are equal in magnitude and opposite in rotational direction, all arranged as claimed. The polarization is the same in the position where the waveguides are parallel. Orthogonal polarizations are shown in Fig. 1 at "II" and "III". Further regarding Claims 57-59, the coupler 7 is configured to effect substantially equal and additive changes in the polarizations at the junctions of the two waveguides. The changes oppose each other by virtue of different polarizations.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 68-78,81,82 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuding et al (4311973) in view of Seavey (4065772).

Regarding Claims 68-82 and 87, Nuding et al show a waveguide system for propagating a microwave (GHz) signal which enters the system oriented with a first polarization and exits the system at a second polarization, the system comprises, a first waveguide 2 coupled to a plate, a second waveguide 1 coupled to a plate. No polarization plate appears to be taught. Thus, Seavey shows a polarization plate 12 with an offset slot oriented 45 degrees and similar in geometry to the waveguide coupling and couples to an antenna to provide the desired polarization change. The plate is adapted to be coupled to that

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waveguide feeder as in Nuding et al. It would have been obvious to the skilled artisan to employ the polarization plate 12 and antenna of Seavey in the waveguide coupling of Nuding et al, for the purpose of providing circular polarization. A desired impedance occurs due to the coupling aperture/slot that couples the signals.

***Allowable Subject Matter***

7. Claims 79 and 80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 60-62,89 and 90 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (703) 305-3555. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.



Michael C. Wimer  
Primary Examiner  
Art Unit 2821

MCW  
June 6, 2002